



Event Notifications Powered by
NC HealthConnex

V3.1 Specifications

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Contents

1	Overview	3
1.1	Summary	3
1.2	Service Options	3
2	Subscribing to NC*Notify.....	4
2.1	Enrollment	4
3	NC*Notify v3	5
3.1	Patient panels	5
3.2	Notifications.....	5
3.2.1	Notification files	5
3.2.2	HL7 notifications	5
Appendix A	Secure exchange of patient panels	7
3.2.3	Secure File Transfer (SFTP)	7
Appendix B	Secure exchange of notification flat files.....	8
3.2.4	Secure File Transfer (SFTP)	8
Appendix C	Secure exchange of HL7 v2 messages.....	9
3.2.5	Secure File Transfer (SFTP)	9
3.2.6	Virtual Private Network (VPN)	9
Appendix D	Patient panel specifications.....	11
Appendix E	Notification file specifications	15
Appendix F	HL7 message specifications	18

1 Overview

1.1 Summary

NC*Notify is a service provided by NC HealthConnex which provides subscribers insight into patients' health care activity across North Carolina. NC*Notify allows subscribers to monitor Admission, Discharge, and Transfer (ADT) feeds for patient hospital utilization and outpatient visits via a subscription-based service. NC*Notify can be used to improve transitional care and care coordination.

1.2 Service Options

NC*Notify provides two service options. NC*Notify v3 is targeted at larger organizations that may have dedicated IT staff, can generate a patient panel, may wish to integrate notification files into their systems, and often have a high number of patients for whom they would like to receive notifications. NC*Notify v3+ is suitable for smaller organizations and large organizations who may want to receive more targeted notifications for a subset of their patients and leverage the HealthConnex platform for downstream processing and coordination of follow-up activities.

2 Subscribing to NC*Notify

2.1 Enrollment

To subscribe to NC*Notify, an enrollment form must be completed and submitted to hiea@nc.gov. Staff from the North Carolina Health Information Exchange Authority will validate the enrollment to make sure that the organization wishing to enroll is eligible to receive notifications. NCHIEA staff will reach out to schedule a meeting with the subscriber to review options and specifications.

Based on these discussions subscribers will be enrolled in NC*Notify v3 or NC*Notify v3+. The HIEA will then pass the enrollment request on to the technical vendor, SAS. SAS will work with the subscriber to create a connection if needed, to create and submit patient panels and to receive notifications.

3 NC*Notify v3

3.1 Patient panels

Patient panels are required for NC*Notify v3. Subscribers may choose to securely deliver these files to SAS via sFTP or DSM. Some details for these connections are provided in Appendix A. Patient panels may be updated no more frequently than once per week. Patient panels must be updated at a minimum of once every 90 days to ensure subscribers are receiving notifications for patients with whom they currently have a relationship.

Subscribers to NC*Notify v3 can choose to send patient panels which are full replacements of previous panels or patient panels which are updates to an existing panel. When sending replacement panels, all patients will be marked for addition. When sending update panels, patients within the panel will be marked either for deletion, addition, or update. The processing of the patient panel and handling of each patient is determined based on the name of the file and the first column in the file. For details on naming the files and the required format and content for both replacement patient panels and update patient panels, see Appendix D.

3.2 Notifications

Subscribers to NC*Notify v3 can choose to receive notifications via a flat file or via a HL7 v2 messages. Notification files can be delivered weekly, once per day, or several times per day. HL7 notifications will be delivered in near real-time.

3.2.1 Notification files

A notification file will be generated for each NC*Notify v3 subscriber according to the schedule determined during enrollment. When a relevant event occurs, a new row will be added to the notification file. Duplicate events will be removed if all fields are the same, resulting in one row per event. See Appendix E for details on the notification file.

3.2.2 HL7 notifications

Subscribers to NC*Notify v3 who would like to receive notifications as near real-time HL7 v2 will require a VPN or sFTP connection to the HIE and the ability to ingest these data into their systems. Details of the HL7 content can be found in Appendix F.

5. Version History

V1.0	-	September 4, 2018
V2.0	-	May 30, 2019
V2.1	-	August 5, 2019
V2.1.1	-	August 19, 2019
V3	-	June 9, 2020
V3.1	-	July 20, 2020
V3.1	-	July 23, 2020

- Changes made to reflect the correct sFTP file structure. Removed reference to Notifications folders within Incoming and Outgoing directories.
- Removed “s” in the notification file naming convention and the HL7 file naming convention. Changed hyphen in the naming convention to and underscore.

Previously: <DATETIME>EventNotifications<ORGCODE>_results.csv

Now: <DATETIME>_EventNotification-<ORGCODE>_results.csv

- The datetime in the outbound filenames will now include hours, minutes, seconds, milliseconds.
- Outbound ADT files will end in extension .adt. It was previously .hl7

Appendix A Secure exchange of patient panels

For sending patient panels, subscribers can choose either Direct Secure Messaging (DSM) or sFTP panel. If DSM is chosen and the subscriber does not yet have a DSM address, one can be provided. Details for the sFTP connection are provided below.

3.2.3 Secure File Transfer (sFTP)

3.2.3.1 *Setup*

In order to exchange files via sFTP with NC HealthConnex, there must be some configuration within the SAS environments. This includes whitelisting of the IP and port of the sender, as well as setup of an sFTP account for the subscriber.

3.2.3.2 *Connecting*

There are several methods for connecting to the sFTP server. One method is via the web portal managed by SAS. The user account provided by SAS can be used to login to this portal from the IP address configured during the setup. The sFTP server can also be reached via an FTP client or the command line if the connection is originating from the IP configured during the setup process. The same account information is used in either scenario.

3.2.3.3 *Directory Structure*

Regardless of the sFTP method used to connect and exchange files, the following information applies to the configuration of the directories that will be encountered. At the top level, there are two directories:

- Incoming
- Outgoing

These directories indicate the direction of exchange *relative to SAS*. For instance, the incoming directory is the location for files sent from the subscriber to SAS.

Appendix B Secure exchange of notification flat files

For receiving notification flat files, subscribers can choose either Direct Secure Messaging (DSM) or sFTP. If DSM is chosen and the subscriber does not yet have a DSM address, one can be provided. Details for the sFTP connection are provided below.

3.2.4 Secure File Transfer (sFTP)

3.2.4.1 *Setup*

In order to exchange files via sFTP with NC HealthConnex, there must be some configuration within the SAS environments. This includes whitelisting of the IP and port of the sender, as well as setup of an sFTP account for the subscriber.

3.2.4.2 *Connecting*

There are several methods for connecting to the sFTP server. One method is via the web portal managed by SAS. The user account provided by SAS can be used to login to this portal from the IP address configured during the setup. The sFTP server can also be reached via an FTP client or the command line if the connection is originating from the IP configured during the setup process. The same account information is used in either scenario.

3.2.4.3 *Directory Structure*

Regardless of the sFTP method used to connect and exchange files, the following information applies to the configuration of the directories that will be encountered. At the top level, there are two directories:

- Incoming
- Outgoing

These directories indicate the direction of exchange *relative to SAS*. For instance, the outgoing directory is the location for files sent from SAS to the subscriber.

Appendix C Secure exchange of HL7 v2 messages

For receiving HL7 messages, subscribers can choose either Virtual Private Network (VPN) or sFTP. Details for the sFTP and VPN connections are below

3.2.5 Secure File Transfer (sFTP)

3.2.5.1 Setup

In order to exchange files via sFTP with NC HealthConnex, there must be some configuration within the SAS environments. This includes whitelisting of the IP and port of the sender, as well as setup of an sFTP account for the subscriber.

3.2.5.2 Connecting

There are several methods for connecting to the sFTP server. One method is via the web portal managed by SAS. The user account provided by SAS can be used to login to this portal from the IP address configured during the setup. The sFTP server can also be reached via an FTP client or the command line if the connection is originating from the IP configured during the setup process. The same account information is used in either scenario.

3.2.5.3 Directory Structure

Regardless of the sFTP method used to connect and exchange files, the following information applies to the configuration of the directories that will be encountered. At the top level, there are two directories:

- Incoming
- Outgoing

These directories indicate the direction of exchange *relative to SAS*. For instance, the outgoing directory is the location for files sent from SAS to the subscriber. These directories are where notification files will be placed.

3.2.6 Virtual Private Network (VPN)

3.2.6.1 Setup

In order to allow sending HL7 messages to a subscriber via VPN, The NC HealthConnex team will engage with the networking team at SAS. The subscriber networking team will need to be available to test connectivity and troubleshoot any issues. Some details around the VPN connection from SAS are provided in Table 1.

Table 1. VPN Information

Parameters	
VPN hardware:	Cisco ISR 4331 router
IKE version	IKEv1

NC HealthConnex – NC*Notify v3 Specifications

Phase 1 protocols (SAS preferred is listed. Indicate customer preference, if different)	Encryption: AES-256 Hash algorithm: SHA-256 Auth mode: pre-shared key Diffie Hellman: Group 5 Lifetime: 86400 seconds
Phase 2 protocols (SAS preferred is listed. Indicate customer preference, if different)	Encryption: AES-256 Hash algorithm: HMAC-SHA-256 Perfect Forward Secrecy (PFS): Group 5 Lifetime: 3600 sec / 4608000 KB
IPSEC encapsulation mode: (SAS preferred is listed. Indicate customer preference, if different)	Tunnel

Appendix D Patient panel specifications

Appendix D.1 Patient panel file name

The inbound file should be named according to the following naming convention:

<ORGCODE>-1-<LOADTYPE>-<DATE>.csv

- <ORGCODE> will be provided by SAS
- <LOADTYPE> will be either “Z” for overwrite (most common) or “D” incremental changes, including additions, deletions, and updates
- <DATE> will be formatted as YYYYMMDD

Examples:

PRACTICE2-1-Z-20200315.csv

Appendix D.2 Replacement patient panel content

The file will be a flat text file and contain a header row and at least one row in the body. Each row in the file will contain fields delimited by a “,” comma. The rows will end with the following ascii characters: carriage return (0x0D) and line feed (0x0A). All fields will be delimited, regardless of whether there is data in the field. The expected content of the body rows is depicted in the below table. The required fields are denoted by a ‘Y’ in the “Value Required” column. CustomFields 2 through 5 can be used to track information about a patient that a subscriber would like to see in the notification file. For example, if the patient is part of a special project or initiative, a CustomField could be used to indicate that.

Note: Only commas used to delimit fields will be included. Other commas should be removed before sending.

Table 2. Replacement patient panel file details

Field Name	Value Required	Max Length	Data Requirements
MemberStatus	Y	6	ADD. For panels that are to be overwritten the value will be “ADD” on every row.
OrganizationID	Y	50	Alphanumeric code. Provided by NC HealthConnex.
OrganizationName	Y	None	Full legal name of Organization. Provided by NC HealthConnex.
Practice	N	None	Practice within the organization
NPI	N	50	NPI of the Patient’s Primary Care Provider (if known)
PCPName	N	None	First and Last Name of the Patient’s PCP
LocalPatientID	Y	50	An ID that uniquely identifies the patient across the organization such as an Enterprise ID, MRN, HICNO.
PatientLastName	Y	80	No suffixes
PatientFirstName	Y	60	No middle initials
PatientMiddleName	N	60	
PatientNameSuffix	N	60	
DateOfBirth	Y	50	Format: YYYYMMDD
Gender	Y	50	Supported Values: F = Female, M = Male, U = Unknown

Address	Y	220	
City	Y	50	
State	Y	50	Standard 2-digit state code.
PostalCode	Y	5	Only basic 5-digit code required (e.g. 27613)
HomePhone	N	50	Numbers with no spaces or special characters. E.g. 9193334444
CellPhone	N	50	Numbers with no spaces or special characters. E.g. 9193334444
WorkPhone	N	50	Numbers with no spaces or special characters. E.g. 9193334444
SSN	N	50	Up to 11 characters, including dashes
DriversLicense	N	50	The official driver's license number
Subprogram	N	220	Alphanumeric code provided by NC HealthConnex
CustomField2	N	None	For use by Subscriber
CustomField3	N	None	For use by Subscriber
CustomField4	N	None	For use by Subscriber
CustomField5	N	None	For use by Subscriber

3.2.6.2 Example header row

The header row should appear exactly as indicated below.

MemberStatus,OrganizationID,OrganizationName,Practice,NPI,PCPName,LocalPatientID,PatientLastName,PatientFirstName,PatientMiddleName,PatientNameSuffix,DateOfBirth,Gender,Address,City,State,PostalCode,HomePhone,CellPhone,WorkPhone,SSN,DriversLicense,Subprogram,CustomField2,CustomField3,CustomField4,CustomField5

3.2.6.3 Example body rows

Three example rows are provided below.

ADD,HOSP1,General Hospital,City Obstetrics,1234567890,,4567890,Smith,Sally,Anne,,19901231,F,123 Main Street,Greensboro,NC,23456,9193334444,9191234567,5134567890,,,,,program1,,

ADD,HOSP1,General Hospital,City Family Practice,9876543219,Dr. Jones,654321,Madison,Michael,R,Jr,19520720,M,12 Elm St. Apt.2,Raleigh,NC,27506,9198765432,9198765432,4135556666,111223333,123456,,program2,,

ADD,PRACTICE1,Salem Pediatrics,,,,,567890,Adams,Aaron,David,,20020805,M,456 Hwy 64,Holly Springs,NC,23207,9096543214,,,777889999,,,,,

Appendix D.3 Update patient panel content

The file will be a flat text file and contain a header row and at least one row in the body. Each row in the file will contain fields delimited by a “,” comma. The rows will end with the following ascii characters: carriage return (0x0D) and line feed (0x0A). All fields will be delimited, regardless of whether there is data in the field. The expected content of the body rows is depicted in the below table. The required fields are denoted by a ‘Y’ in the “Value Required” column. Custom Fields 2 through 5 can be used to track information about a patient that a subscriber would like to see in the Outbound Result File. For example, if the patient is part of a special project or initiative, a Custom Field could be used to indicate that.

Note: Only commas used to delimit fields will be included. Other commas should be removed before sending.

Table 3. Incremental patient panel file details

Field Name	Value Required	Max Length	Data Requirements
MemberStatus	Y	6	Supported Values: ADD, UPDATE, DELETE
OrganizationID	Y	50	Alphanumeric code. Provided by NC HealthConnex.
OrganizationName	Y	None	Full legal name of Organization. Provided by NC HealthConnex.
Practice	N	None	Practice within the organization
NPI	N	50	NPI of the Patient's Primary Care Provider (if known)
PCPName	N	None	First and Last Name of the Patient's PCP
LocalPatientID	Y	50	An ID that uniquely identifies the patient across the organization such as an Enterprise ID, MRN, HICNO.
PatientLastName	Y	80	No suffixes
PatientFirstName	Y	60	No middle initials
PatientMiddleName	N	60	
PatientNameSuffix	N	60	
DateOfBirth	Y	50	Format: YYYYMMDD
Gender	Y	50	Supported Values: F = Female, M = Male, U = Unknown
Address	Y	220	
City	Y	50	
State	Y	50	Standard 2-digit state code.
PostalCode	Y	5	Only basic 5-digit code required (e.g. 27613)
HomePhone	N	50	Numbers with no spaces or special characters. E.g. 9193334444
CellPhone	N	50	Numbers with no spaces or special characters. E.g. 9193334444
WorkPhone	N	50	Numbers with no spaces or special characters. E.g. 9193334444
SSN	N	50	Up to 11 characters, including dashes
DriversLicense	N	50	The official driver's license number
Subprogram	N	220	Alphanumeric code provided by NC HealthConnex
CustomField2	N	None	For use by Subscriber
CustomField3	N	None	For use by Subscriber
CustomField4	N	None	For use by Subscriber
CustomField5	N	None	For use by Subscriber

3.2.6.4 Example Header Row

The header row should appear exactly as indicated below.

MemberStatus,OrganizationID,OrganizationName,Practice,NPI,PCPName,LocalPatientID,PatientLastName,PatientFirstName,PatientMiddleName,PatientNameSuffix,DateOfBirth,Gender,Address,City,State,PostalCode,HomePhone,CellPhone,WorkPhone,SSN,DriversLicense,Subprogram,CustomField2,CustomField3,CustomField4,CustomField5

3.2.6.5 Example Body Rows

Three example rows are provided below.

ADD,HOSP1,General Hospital,City Obstetrics,1234567890,,4567890,Smith,Sally,Anne,,19901231,F,123 Main Street,Greensboro,NC,23456,9193334444,9191234567,5134567890,,,,program1,,

UPDATE,HOSP1,General Hospital,City Family Practice,9876543219,Dr.

Jones,654321,Madison,Michael,R,Jr,19520720,M,12 Elm St.

Apt.2,Raleigh,NC,27506,9198765432,9198765432,4135556666,111223333,123456,,program2,,

DELETE,PRACTICE1,Salem Pediatrics,,,,567890,Adams,Aaron,David,,20020805,M,456 Hwy 64,Holly Springs,NC,23207,9096543214,,,777889999,,,,,

Appendix E Notification file specifications

Appendix E.1 Flat File

The Outbound Result File will be named according to the following naming convention:

<DATETIME>_EventNotification-<ORGCODE>_results.csv

Where:

- <ORGCODE> will be provided by SAS
- <DATETIME> will be formatted as YYYYMMDDHHMMSSmmm

Examples:

20200410052525222_EventNotification-PRACTICE2_results.csv

Table 4. Outbound notification file details

Name	Required	Max Length	Data Requirements
OrganizationID	Y	50	Alphanumeric code. Provided by NC HealthConnex.
OrganizationName	Y	None	Full legal name of Organization. Provided by NC HealthConnex.
Practice	N	None	Practice within the organization
NPI	N	50	NPI of the Patient's Primary Care Provider (if known)
PCPName	N	None	First and Last Name of the Patient's PCP
LocalPatientID	Y	50	An ID that uniquely identifies the patient across the organization such as an Enterprise ID, MRN, HICNO.
PatientLastName	Y	80	No suffixes
PatientFirstName	Y	60	No middle initials
PatientMiddleName	N	60	
PatientNameSuffix	N	60	
DateOfBirth	Y	50	Format: YYYYMMDD
Gender	Y	50	Supported Values: F = Female, M = Male, U = Unknown
Address	Y	220	
City	Y	50	
State	Y	50	Standard 2-digit state code.
PostalCode	Y	5	Only basic 5-digit code required (e.g. 27613)
HomePhone	N	50	Numbers with no spaces or special characters. E.g. 9193334444
CellPhone	N	50	Numbers with no spaces or special characters. E.g. 9193334444
WorkPhone	N	50	Numbers with no spaces or special characters. E.g. 9193334444
SSN	N	50	Up to 11 characters, including dashes
DriversLicense	N	50	The official driver's license number
Subprogram	N	220	Alphanumeric code provided by NC HealthConnex
CustomField2	N	None	For use by Subscriber
CustomField3	N	None	For use by Subscriber
CustomField4	N	None	For use by Subscriber
CustomField5	N	None	For use by Subscriber
SourceFeed	Y	None	Source of the original message
SourceFacility	Y	None	Facility name that the visit took place

SourceMRN	Y	None	Patient MRN associated with source organization
EventDate	Y	12	Date of Clinical Event. Format YYYYMMDDHHMM
PatientClass	Y	1	E = EMERGENCY, I = INPATIENT, O = OUTPATIENT, P = PREADMIT, R = RECURRING_PATIENT, B = OBSTETRICS, C = COMMERCIAL_ACCOUNT, N = NOT_APPLICABLE, U = UNKNOWN. UNKNOWN is used for any Patient Class not matching one of these values. (see Table 32, PV1 of NCQ Minimum Data Specifications)
EventType	Y	1	Clinical Event Type A = Admit/Visit, D = Discharge
AdmitDate	N	8	Format: YYYYMMDD
AdmitTime	N	8	Format: HHMMSS
AdmitReasonCode	N	None	
AdmitReasonDescription	N	None	
AdmitTypeCode	N	None	
AdmitTypeDescription	N	None	
ReferralInfo	N	200	Referrer First Name Last Name
DischargeDate	N	8	Format: YYYYMMDD
DischargeTime	N	8	Format: DDHHMMSS
DeathIndicator	N	3	Death Indicator. Yes or No
DeathDateTime	N	14	Format: YYYYMMDDHHMMSS
DiagnosisCode	N	None	Encounter diagnosis code. If encounter diagnosis is not available, chief complaint will be provided.
DiagnosisDescription	N	None	Encounter diagnosis description. If encounter diagnosis is not available, chief complaint will be provided.
VisitNumber	N	None	The visit number from the organization where the encounter occurred
DischargeDispositionCode	N	3	Discharge Disposition Cod
DischargeDispositionDescription	N	50	Discharge Disposition Description
DischargeLocationCode	N	50	Discharge Location
DischargeLocationDescription	N	None	
AttendingPhysician	N	None	

3.2.6.6 Example Header Row

The header row will appear exactly as indicated below.

MemberStatus,OrganizationID,OrganizationName,Practice,NPI,PCPName,LocalPatientID,PatientLastName,PatientFirstName,PatientMiddleName,PatientNameSuffix,DateOfBirth,Gender,Address,City,State,PostalCode,HomePhone,CellPhone,WorkPhone,SSN,DriversLicense,Subprogram,CustomField2,CustomField3,CustomField4,CustomField5,SourceFeed,SourceFacility,SourceMRN,EventDate,PatientClass,EventType,AdmitDate,AdmitTime,AdmitReasonCode,AdmitReasonDescription,AdmitTypeCode,AdmitTypeDescription,ReferralInfo,DischargeDate,DischargeTime,DeathIndicator,DeathDateTime,DiagnosisCode,DiagnosisDescription,VisitNumber,DischargeDispositionCode,DischargeDispositionDescription,DischargeLocationCode,DischargeLocationDescription,AttendingPhysician

3.2.6.7 Example Body Rows

Two example rows are provided below.

HOSP1,General Hospital,City Obstetrics,1234567890,,4567890,Smith,Sally,Anne,,19901231,F,123 Main Street,Greensboro,NC,23456,9193334444,9191234567,5134567890,,,,program1,,,,EMR,Country Family Practice,345678,20200530,O,A,20200530,101521,R21,Skin Rash,3,Elective,Smith,,,,,DX-123,Cond1,33334455,7,Home,,,House

PRACTICE1,Salem Pediatrics,,,,,567890,Adams,Aaron,David,,20020805,M,456 Hwy 64,Holly Springs,NC,23207,9096543214,,,777889999,,,,,,HOSPSYSTEM2,Raleigh Hospital,135793575,20200530,E,D,,,A91,Dengue Suspect,2,Urgent,,20200530,123000,Yes,20200530,,,98765,2,,,,Jones

HOSP1,General Hospital,City Family Practice,987654321,Dr. Jones,654321,Madison,Michael,R,Jr,19520720,M,12 Elm St.,Apt. 2,Raleigh,NC,27506,9198765432,MC,999998888,123456,,,,,,HOSPSYSTEM,Hillside Orthopedics,8642,20200530,O,A,20200530,113000,R52,Body aches,3,Elective,Clark,,,No,,DX-345,Problem2,66778899,2,,,,Wallace

Appendix F HL7 message specifications

HL7 Messages received as part of NC*Notify will be HL7 v2.5.1 messages. They may contain the following information. Data sent to a subscriber is dependent on the data being sent by the organization where the event takes place.

ADT messages will have the following naming convention:

<DATETIME>_EventNotification-<ORGCODE>_results.adt

Where:

- <ORGCODE> will be provided by SAS
- <DATETIME> will be formatted as YYYYMMDDHHMMSSmmm

Examples:

20200410052525222_EventNotification-PRACTICE2_results.adt

202004100525253_EventNotification-HOSP1_results.adt

Table 5. HL7 segments in notification messages

MSH		
MSH	MSH.1.1	Field Separator
MSH	MSH.2.1	Encoding Characters
MSH	MSH.3.1	Sending Application
MSH	MSH.4.1	Source Code (Sending Facility)
MSH	MSH.7.1	Message Date Time
MSH	MSH.9.1	Message Type
MSH	MSH.9.2	Event Trigger
MSH	MSH.9.3	Message Structure
MSH	MSH.10.1	Message Control ID
MSH	MSH.11.1	Processing ID
MSH	MSH.12.1	Version ID
EVN		
EVN	EVN.1.1	Event Type
EVN	EVN.2.1	Event Recorded Date Time
EVN	EVN.7.1	Event Facility
PID		
PID	PID.1.1	Set ID
PID	PID.3.1	Patient Identifier
PID	PID.3.4	Patient Identifier - Assigning Authority
PID	PID.3.5	Patient Identifier – ID Type Code
PID	PID.3.6	Patient Identifier – Assigning Facility
PID	PID.5.1	Patient Family Name
PID	PID.5.2	Patient Given Name
PID	PID.5.3	Patient Middle Name
PID	PID.5.4	Patient Name Suffix

PID	PID.5.5	Patient Name Prefix
PID	PID.5.7	Patient Name Type Code
PID	PID.5.14	Patient Name Professional Suffix
PID	PID.7.1	Patient DOB
PID	PID.8.1	Patient Gender
PID	PID.9.1	Patient Alias Family Name
PID	PID.9.2	Patient Alias Given Name
PID	PID.9.3	Patient Alias Middle Name
PID	PID.9.4	Patient Alias Suffix
PID	PID.10.1	Patient Race ID
PID	PID.10.2	Patient Race Text
PID	PID.10.3	Patient Race Coding System
PID	PID.11.1	Patient Address Street 1
PID	PID.11.2	Patient Address Street 2
PID	PID.11.3	Patient Address City
PID	PID.11.4	Patient Address State
PID	PID.11.5	Patient Address Zip
PID	PID.11.6	Patient Address Country
PID	PID.11.9	Patient Address County Code
PID	PID.13.1	Patient Telephone Home
PID	PID.13.2	Patient Telephone Use Code
PID	PID.13.3	Patient Telephone Equipment Type
PID	PID.13.4	Patient Telephone Email Address
PID	PID.13.5	Patient Telephone Country Code
PID	PID.13.6	Patient Telephone Area Code
PID	PID.13.7	Patient Telephone Number
PID	PID.13.8	Patient Telephone Extension
PID	PID.13.9	Patient Telephone Any Text
PID	PID.14.1	Patient Telephone Business
PID	PID.14.2	Patient Telephone Use Code
PID	PID.14.3	Patient Telephone Equipment Type
PID	PID.14.5	Patient Telephone Country Code
PID	PID.14.6	Patient Telephone Area Code
PID	PID.14.7	Patient Telephone Number
PID	PID.14.8	Patient Telephone Extension
PID	PID.14.9	Patient Telephone Any Text
PID	PID.15.1	Patient Primary Language ID
PID	PID.15.2	Patient Primary Language Text
PID	PID.15.3	Patient Primary Language Coding System
PID	PID.16.1	Patient Marital Status ID
PID	PID.16.2	Patient Marital Status Text
PID	PID.16.3	Patient Marital Status Coding System

PID	PID.17.1	Patient Religion ID
PID	PID.17.2	Patient Religion Text
PID	PID.17.3	Patient Religion Coding System
PID	PID.19.1	Patient SSN
PID	PID.22.1	Patient Ethnicity Group ID
PID	PID.22.2	Patient Ethnicity Group Text
PID	PID.22.3	Patient Ethnicity Group Coding System
PID	PID.29.1	Patient Death Date and Time
PID	PID.30.1	Patient Death Indicator
PID	PID.33.1	Patient Last Update Date and Time
PID	PID.34.1	Patient Last Update Facility Text
PID	PID.34.2	Patient Last Update Facility ID
PID	PID.34.3	Patient Last Update Facility ID Type
PV1		
PV1	PV1.1.1	Visit Set ID
PV1	PV1.2.1	Visit Patient Class
PV1	PV1.4.1	Visit Admit Type
PV1	PV1.7.1	Visit Doctor Attending ID
PV1	PV1.7.2	Visit Doctor Attending Family Name
PV1	PV1.7.3	Visit Doctor Attending Given Name
PV1	PV1.7.9	Visit Doctor Attending Assigning Authority
PV1	PV1.8.1	Visit Doctor Referring ID
PV1	PV1.8.2	Visit Doctor Referring Family Name
PV1	PV1.8.3	Visit Doctor Referring Given Name
PV1	PV1.8.9	Visit Doctor Referring Assigning Authority
PV1	PV1.9.1	Visit Doctor Consulting ID
PV1	PV1.9.2	Visit Doctor Consulting Family Name
PV1	PV1.9.3	Visit Doctor Consulting Given Name
PV1	PV1.9.9	Visit Doctor Consulting Assigning Authority
PV1	PV1.10.1	Visit Hospital Service
PV1	PV1.14.1	Visit Admit Source
PV1	PV1.17.1	Visit Doctor Admitting ID
PV1	PV1.17.2	Visit Doctor Admitting Family Name
PV1	PV1.17.3	Visit Doctor Admitting Given Name
PV1	PV1.17.9	Visit Doctor Admitting Assigning Authority
PV1	PV1.19.1	Visit Number (Unique Encounter Code)
PV1	PV1.36.1	Visit Discharge Disposition
PV1	PV1.44.1	Visit Admit Date Time
PV1	PV1.45.1	Visit Discharge Date Time
PV2		
PV2	PV2.1.1	Set ID - PV2
PV2	PV2.3.1	Visit Admit Reason Code

PV2	PV2.3.2	Visit Admit Reason Description
PV2	PV2.3.3	Visit Admit Reason Coding System
DG1		
DG1	DG1.1.1	Diagnosis Set ID
DG1	DG1.3.1	Diagnosis Code
DG1	DG1.3.2	Diagnosis Code Description
DG1	DG1.3.3	Diagnosis Code Coding System
IN1		
IN1	IN1.1.1	Insurance Set ID
IN1	IN1.2.1	Insurance Plan ID
IN1	IN1.4.1	Insurance Company - Name
IN1	IN1.8.1	Insurance Group Number
IN1	IN1.12.1	Insurance Plan Date Effective
IN1	IN1.36.1	Policy Number